

AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions and listings of claims in the application:

1. (cancelled) A device for treating tissue comprising:
 - an elongate shaft having proximal and distal ends, a lumen extending therebetween;
 - a control structure operably connected to the elongate shaft for actuation of the device by user activation;
 - at least one injury effector adjacent to the distal end of the elongate shaft, and capable of inducing a mechanical, chemical, substance, or energy injury at a first tissue site in response to actuation by the control structure when the injury effector is placed against or near the first tissue site, wherein at least one injury effector does not contain therapeutic-substance delivery capabilities;
 - at least one therapeutic-substance delivery effector carried on the distal end of the elongate shaft, the at least one therapeutic-substance delivery effector having at least one therapeutic-substance delivery port through which a therapeutic-substance can be delivered to a second tissue site against or near which the at least one therapeutic-substance delivery effector is placed, wherein the first tissue site and second tissue site are located at different locations in the tissue; and
 - at least one therapeutic-substance source having a reservoir for storing the therapeutic-substance and in substance communication with the at least one therapeutic-substance delivery port, and responsive to said control structure to eject the therapeutic-substance from said reservoir through the at least one therapeutic-substance delivery port into tissue located at or near the second tissue site;
 - wherein the at least one injury effector has a first exposed length and the at least one therapeutic-substance delivery effector has a second exposed length, and wherein the first exposed length is greater than the second exposed length.
2. (cancelled) The device of claim 1 further comprising a marking effector for creating a treatment position marker.
3. (cancelled) The device of claim 2 wherein the marking effector is separate from the injury and therapeutic-substance delivery effectors.

4. (cancelled) The device of claim 2 wherein the marking effector is combined with at least one of the injury or therapeutic-substance delivery effectors.

5. (cancelled) The device of claim 1 wherein the injury effector and the therapeutic-substance source are capable of being actuated by the control structure simultaneously.

6. (cancelled) The device of claim 1 wherein the injury effector and the therapeutic-substance source are capable of being actuated by the control structure sequentially.

7. (cancelled) The device of claims 2, 3, or 4 wherein at least one of the one or more injury effectors, at least one of the one or more therapeutic-substance delivery effectors, and the marking effector actuate simultaneously.

8. (cancelled) The device of claims 2, 3, or 4 wherein at least one of the one or more injury effectors, at least one of the one or more therapeutic-substance delivery effectors, and the marking effector actuate sequentially.

9. (cancelled) The device of claims 2, 3, or 4 wherein the marking effector actuates independently from the one or more injury effectors or the one or more therapeutic-substance delivery effectors.

10. (cancelled) The device of claim 1 wherein the therapeutic-substance source is capable of being actuated independent of the actuation of the injury effector.

11. (cancelled) The device of claim 1 wherein the therapeutic-substance source is capable of being actuated simultaneous with the actuation of the injury effector.

12. (cancelled) The device of claim 1 wherein the distal end of the elongate shaft is steerable.

13. (cancelled) The device of claim 1 further comprising an optical viewing port located at or proximate the elongate shaft's distal end and being in optical communication with an imaging device.
14. (cancelled) The device of claim 1 wherein the elongate shaft further comprises a contact sensor located at or proximate the elongate shaft's distal end.
15. (cancelled) The device of claim 1 wherein the elongate shaft further comprises a positioning aid located at or proximate the elongate shaft's distal end.
16. (cancelled) The device of claim 1 wherein the elongate shaft is a catheter.
17. (cancelled) The device of claim 1 wherein the elongate shaft comprises an endoscope.
18. (cancelled) The device of claim 1 wherein the elongate shaft comprises an open surgical hand held device.
19. (cancelled) A method of treating ischemic tissue comprising the steps of, identifying target tissue regions of ischemic tissue, providing a device that can upon activation and by a single placement of the device, cause an injury to at least one site of target tissue different than at least one site of target tissue where a therapeutic-substance is delivered, placing the device against the identified target tissue, and, activating the device to cause injury to selected sites within the target tissue, and to cause therapeutic-substance to be delivered to regions in the target tissue at preselected sites away from the sites of injury.
20. (cancelled) A method for treating a target tissue comprising the steps of identifying the target tissue producing one or more sites of injury within said region, where multiple sites of injury, if produced, are at known relative positions with respect to one another, and infusing therapeutic-substance into one or more sites different than the one or more sites of injury.

21. (cancelled) A method of treating ischemic tissue comprising the steps of identifying a region of ischemic tissue within a patient's body producing one or more sites of injury within such region, where multiple sites, if produced, are at known relative positions with respect to one another, infusing therapeutic-substance into one or more sites different from such injury sites and at known positions away from such injury sites.
22. (cancelled) A device for treating ischemic tissue comprising:
an elongate shaft having a proximal end, a distal end, and a lumen extending therebetween;
a control structure operably connected to the elongate shaft;
at least one injury effector adjacent to the distal end of the elongate shaft and capable of inducing a mechanical, chemical, substance or energy injury in the ischemic tissue in response to actuation by the control structure, wherein at least one injury effector does not contain therapeutic-substance delivery capabilities;
at least one therapeutic-substance delivery effector disposed on the distal end of the elongate shaft, wherein the therapeutic-substance delivery effector comprises at least one therapeutic substance delivery port; and
at least one therapeutic-substance source having a reservoir for storing a therapeutic substance and in fluid communication with the at least one therapeutic-substance delivery port, wherein the therapeutic-substance source is responsive to actuation by the control structure for ejecting the therapeutic-substance from the reservoir through the therapeutic-substance delivery port; and
wherein the control structure is capable of actuating the injury effector to create the injury at a first tissue site and is capable of actuating the therapeutic-substance source to expel the therapeutic substance through the therapeutic-substance delivery port to create a least one site of therapeutic-substance delivery to a second tissue site, wherein the first and second tissue sites are located at different locations in the ischemic tissue;
wherein the at least one injury effector has a first exposed length and the at least one therapeutic-substance delivery effector has a second exposed length, and wherein the first exposed length is greater than the second exposed length.

23. (cancelled) The device of claim 22, wherein the injury effector and the therapeutic-substance source are capable of being actuated simultaneously.
24. (cancelled) The device of claim 22, wherein the injury effector and the therapeutic-substance source are capable of being actuated sequentially.
25. (cancelled) The device of claim 22, wherein the therapeutic-substance source is capable of being actuated independent of the actuation of the injury effector.
26. (cancelled) The device of claim 22, wherein the distal end of the elongate shaft is steerable.
27. (cancelled) The device of claim 22, wherein the elongate shaft comprises an endoscope.
28. (cancelled) The device of claim 22, wherein the elongate shaft comprises an open surgical device.
29. (cancelled) The device of claim 22, wherein the at least one injury effector is not in substance communication with the at least one therapeutic-substance delivery source.
30. (cancelled) The device of claim 22, wherein a plurality of therapeutic-substance delivery effectors are disposed radially around at least one injury effector.
31. (cancelled) The device of claim 1, wherein the at least one injury effector is not in substance communication with the at least one therapeutic-substance delivery source.
32. (cancelled) The device of claim 1, wherein a plurality of therapeutic-substance delivery effectors are disposed radially around at least one injury effector.
33. (cancelled) A device for treating tissue comprising:
an elongate shaft having proximal and distal ends, a lumen extending therebetween;
a control structure operably connected to the elongate shaft for actuation of the device by user activation;

at least one injury effector adjacent to the distal end of the elongate shaft, and capable of inducing a mechanical, chemical, substance, or energy injury at a first tissue site in response to actuation by the control structure when the injury effector is placed against or near the first tissue site, wherein at least one injury effector does not contain therapeutic-substance delivery capabilities;

at least one therapeutic-substance delivery effector carried on the distal end of the elongate shaft, the at least one therapeutic-substance delivery effector having at least one therapeutic-substance delivery port through which a therapeutic-substance can be delivered to a second tissue site against or near which the at least one therapeutic-substance delivery effector is placed, wherein the first tissue site and second tissue site are located at different locations in the tissue; and

at least one therapeutic-substance source having a reservoir for storing the therapeutic-substance and in substance communication with the at least one therapeutic-substance delivery port, and responsive to said control structure to eject the therapeutic-substance from said reservoir through the at least one therapeutic-substance delivery port into tissue located at or near the second tissue site;

wherein the at least one injury effector is not in substance communication with the at least one therapeutic-substance delivery source.

34. (cancelled) A device for treating tissue comprising:

an elongate shaft having proximal and distal ends, a lumen extending therebetween;
a control structure operably connected to the elongate shaft for actuation of the device by user activation;

at least one injury effector adjacent to the distal end of the elongate shaft, and capable of inducing a mechanical, chemical, substance, or energy injury at a first tissue site in response to actuation by the control structure when the injury effector is placed against or near the first tissue site, wherein at least one injury effector does not contain therapeutic-substance delivery capabilities;

at least one therapeutic-substance delivery effector carried on the distal end of the elongate shaft, the at least one therapeutic-substance delivery effector having at least one therapeutic-substance delivery port through which a therapeutic-substance can be delivered to a second tissue site against or near which the at least one therapeutic-substance delivery effector is placed, wherein the first tissue site and second tissue site are located at different locations in the tissue; and

at least one therapeutic-substance source having a reservoir for storing the therapeutic-substance and in substance communication with the at least one therapeutic-substance delivery port, and responsive to said control structure to eject the therapeutic-substance from said reservoir through the at least one therapeutic-substance delivery port into tissue located at or near the second tissue site;

wherein a plurality of therapeutic-substance delivery effectors are disposed radially around at least one injury effector.

35. (new) A device for treating tissue comprising:

an elongate shaft having a proximal end, a distal end, and a lumen extending between the proximal end and the distal end;

at least one injury effector located at the distal end of the elongate shaft, capable of producing an injury at a first tissue location, and having no therapeutic substance delivery capabilities;

at least one therapeutic substance delivery effector located at the distal end of the elongate shaft, capable of delivering a therapeutic substance to a second tissue location;

wherein at least a portion of the lumen is configured to receive the therapeutic substance; and

wherein at least a portion of the at least one injury effector passes through, and is electrically isolated from, the portion of the lumen configured to receive the therapeutic substance.

36. (new) The device of claim 35, wherein the at least one injury effector is capable of inducing a mechanical, chemical, substance, or energy injury.

37. (new) The device of claim 35, wherein the at least one therapeutic substance delivery effector is in fluid communication with the portion of the lumen configured to receive the therapeutic substance.

38. (new) The device of claim 35, further comprising a control structure operably connected to the elongate shaft for actuation of the device by user activation.

39. (new) The device of claim 35, wherein the lumen is in fluid communication with a therapeutic substance reservoir.

40. (new) The device of claim 35, wherein the at least one injury effector and at least one therapeutic substance delivery effector are capable of being simultaneously actuated by the control structure.

41. (new) The device of claim 35, wherein the at least one injury effector and at least one therapeutic substance delivery effector are capable of being sequentially actuated by the control structure.

42. (new) The device of claim 35, wherein the distal end of the elongate shaft is steerable.

43. (new) The device of claim 35, wherein the elongate shaft comprises an endoscope.

44. (new) The device of claim 35, wherein the elongate shaft comprises an open surgical hand held device.

45. (new) The device of claim 35, wherein the at least one injury effector has a first exposed length and the at least one therapeutic-substance delivery effector has a second exposed length, and wherein the first exposed length is greater than the second exposed length.

46. (new) The device of claim 35, wherein a plurality of therapeutic-substance delivery effectors are disposed radially around at least one injury effector.